N2 End 84. (New) The method according to claim 39, wherein the direction in which carriers of said first thin film transistor flow is a direction connecting source and drain regions of said first thin film transistor.

REMARKS

The Examiner's final Office Action dated March 19, 2002 has been received and its contents carefully noted. Applicant respectfully submits that this response is timely filed and fully response to the Office Action.

Claims 5-12, 16, 19, 26-48 and 67-81 were pending in the present application. By this amendment, claims 76-81 are amended and new claims 82-84 are added. Applicant respectfully submits that no issue of new matter is presented that would require a further search and/or consideration by the Examiner. Accordingly, claims 5-12, 16, 19, 26-48 and 67-84 are pending, of which claims 27, 29, 31, 33, 36, 39, 42, 45, 47, 49, 52, 55, 58, 61 and 64 are independent.

A. 35 U.S.C. §103 Rejection

Claims 5-8, 11, 12, 16, 19, 27-48 and 67-81 stand rejected under 35 U.S.C. §103(a) as unpatentable over Oka '915 in view of Liu et al. '826, Kuznetsov and Kuomi, claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as unpatentable over Oka '915 in view of Liu et al. '826, Kuznetsov, Kuomi, Yonehara '093 and/or Shibata '224, and claim 26 stands rejected under 35 U.S.C. §103(a) as unpatentable over Oka '915 in view of Liu et al. '826, Kuznetsov and Kuomi. Applicant traverses these rejections for at least the reasons solicited hereinbelow.

The claimed invention is directed generally to a method of manufacturing a semiconductor device comprising the steps of forming a first thin film transistor by using a first semiconductor island and forming a second thin film transistor by using a second semiconductor island, whereby the first thin film transistor is arranged so that crystals extend along a direction in which carriers of the first thin film transistor flow. This feature is clearly provided for in independent claims 27, 29, 31, 33, 36, 39, 42, 45, 47, 49, 52, 55, 58, 61 and 64.

The Combination of References Fails to Disclose the Claimed Invention

It is contended that the proposed combination of references is not sufficient to establish a *prima facie* case of obviousness against the claimed invention inasmuch as their combined teachings clearly fail to disclose each and every feature recited by the claims.

For instance, the Examiner finds that Oka '915 discloses in FIGs. 5-8 a method of manufacturing a semiconductor device whereby grain growth proceeds from the seed regions parallel to the substrate surface and the TFT charge carrier flow. Consequently, the Examiner finds inherent that, "in order to cause grain growth parallel to the substrate surface and TFT carrier charge flow..., the TFT is arranged in light of this relationship between the carrier flow direction and the crystal growth direction.

Applicant respectfully traverses this finding. There is a clear lack of disclosure in Oka '915, either expressly or inherently, for arranging crystals along a carrier flow direction of a first thin film transistor, as required in accordance with the claimed invention. In particular, FIGs. 5-8 of Oka '915 merely disclose the arrangement of the channel region within the region (505) at which it is disclosed that the probability of the presence of the crystal growth boundary is practically zero. Oka merely discloses arranging the channel region within the region at which the probability of the presence of the crystal grain boundary is practically zero. (See, page 12, lines 13-18.) In fact, Oka '915 fails to show any arrangement of the source and drain regions in an island region. Thus, it is unclear how Oka '915 can inherently teach, disclose or suggest crystal growth along a direction of carrier flow of the first thin film transistor, since it is not clear whether the source and drain is even included in the region (505) identified in Oka.

On the other hand, the manufacture of the semiconductor device in accordance with the claimed invention requires formation of a first thin film transistor by using a first semiconductor island such that crystals extend along with a direction in which carriers of the first thin film transistor flow. The "direction in which carriers of the first thin film transistor flow" is intended by Applicant to mean the direction connecting the source and drain regions of the first thin film transistor. (See, pg. 12, lines 24-28 of the instant specification.) In order to clearly recite this meaning, dependent claims 76-81 are amended, and new claims 82-84 are added to recite that

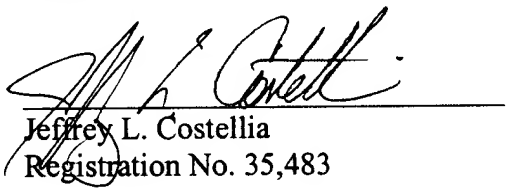
crystals extend along the direction connecting the source and drain regions. As previously mentioned, there is no inherent teaching, disclosure or suggestion in Oka '915 of such a feature.

It is further contended that the secondary references cited by the Examiner, notably, Liu et al. '826, Kuznetsov, Kuomi, Yonehara '093 and Shibata '224, are deficient insofar as they each fail to disclose forming a thin film transistor so that the crystals extend along with a direction in which carriers of the thin film transistor flow.

Conclusion

Having responded to all rejections set forth in the outstanding final Office Action, it is submitted that the claims are now in condition for allowance. An early and favorable Notice of Allowance is respectfully solicited. In the event that the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, the Examiner is courteously requested to contact Applicants' undersigned representative.

Respectfully submitted,



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MARKED-UP VERSION OF THE AMENDED CLAIMS

76. (Twice Amended) The method according to claim 27, wherein [a concentration of said metal in said first region is 1×10^{19} atoms/cm^3 or lower] the direction in which carriers of said first thin film transistor flow is a direction connecting source and drain regions of said first thin film transistor.

77. (Twice Amended) The method according to claim 33, wherein [a concentration of said metal in said first region is 1×10^{19} atoms/cm^3 or lower] the direction in which carriers of said first thin film transistor flow is a direction connecting source and drain regions of said first thin film transistor.

78. (Twice Amended) The method according to claim 36, wherein [a concentration of said metal in said first region is 1×10^{19} atoms/cm^3 or lower] the direction in which carriers of said first thin film transistor flow is a direction connecting source and drain regions of said first thin film transistor.

79. (Twice Amended) The method according to claim 42, wherein [a concentration of said metal in said first region is 1×10^{19} atoms/cm^3 or lower] the direction in which carriers of said first thin film transistor flow is a direction connecting source and drain regions of said first thin film transistor.

80. (Twice Amended) The method according to claim 45, wherein [a concentration of said nickel in said first region is 1×10^{19} atoms/cm^3 or lower] the direction in which carriers of said first thin film transistor flow is a direction connecting source and drain regions of said first thin film transistor.

81. (Twice Amended) The method according to claim 47, wherein [a concentration of said nickel in said first region is 1×10^{19} atoms/cm^3 or lower] the direction in which carriers of

said first thin film transistor flow is a direction connecting source and drain regions of said first thin film transistor.